

Sub ~~A~~ 1

Form	Mean	St. Dev.	Form	Mean	St. Dev.
1	1.00	0.00	10	1.00	0.00
2	1.00	0.00	11	1.00	0.00
3	1.00	0.00	12	1.00	0.00
4	1.00	0.00	13	1.00	0.00
5	1.00	0.00	14	1.00	0.00
6	1.00	0.00	15	1.00	0.00
7	1.00	0.00	16	1.00	0.00
8	1.00	0.00	17	1.00	0.00
9	1.00	0.00	18	1.00	0.00

1. A method of formatting content data for presentation on a client device, comprising:
- receiving a request for the content data, the request having client device characteristic information;
 - storing the client device characteristic information;
 - generating the content data; and
 - transcoding the content data using the client device characteristic information to produce transcoded content data.
2. The method of claim 1, wherein the step of storing the client device characteristic information is performed in a preamble servlet.
3. The method of claim 2, wherein the step of transcoding is performed by a transcoding servlet, and wherein the transcoding servlet obtains the client device characteristic information from the preamble servlet.
4. The method of claim 1, wherein the content data is generic content data, and wherein the transcoded content data is content data that is formatted for presentation

4 on the client device.

1 5. The method of claim 1, wherein storing the client
2 device characteristic information includes storing the
3 client device characteristic information in a data
4 structure indexed for retrieval when generating a
5 response message.

1 6. The method of claim 1, further comprising:
2 generating a response message including the
3 transcoded content data; and
4 transmitting the response message to the client
5 device.

1 7. The method of claim 1, wherein the request is an
2 hypertext transport protocol request message, and wherein
3 the client device characteristic information is obtained
4 from a header of the hypertext transport protocol request
5 message.

1 8. The method of claim 1, wherein the step of storing
2 the client device characteristic information and the step
3 of generating the content data are performed at
4 approximately a same time.

1 9. The method of claim 7, wherein the header includes
2 at least the client device type and one or more of user

3 identification, passwords, uniform resource locator (URL)
4 requested and HyperText Transfer Protocol (HTTP) method
5 used.

1 10. The method of claim 1, wherein the method is
2 implemented in a network server.

1 11. An apparatus for formatting content data for
2 presentation on a client device, comprising:
3 a preamble servlet;
4 a content generator coupled to the preamble servlet;
5 and
6 a transcoding servlet coupled to the content
7 generator, wherein when a request for the content data is
8 received by the apparatus, the request having client
9 device characteristic information, the preamble servlet
10 stores the client device characteristic information in a
11 data structure and the content generator generates the
12 content data, and wherein the transcoding servlet
13 transcodes the content data using the client device
14 characteristic information to produce transcoded content
15 data.

1 12. The apparatus of claim 11, wherein the transcoding
2 servlet obtains the client device characteristic
3 information from the preamble servlet.

1 13. The apparatus of claim 11, wherein the content data
2 is generic content data, and wherein the transcoded
3 content data is content data that is formatted for
4 presentation on the client device.

1 14. The apparatus of claim 11, wherein the preamble
2 servlet stores the client device characteristic
3 information in a data structure indexed for retrieval
4 when generating a response message.

1 15. The apparatus of claim 11, further comprising a
2 servlet engine that generates a response message
3 including the transcoded content data and transmits the
4 response message to the client device.

1 16. The apparatus of claim 11, wherein the request is an
2 hypertext transport protocol request message, and wherein
3 the client device characteristic information is obtained
4 from a header of the hypertext transport protocol request
5 message.

1 17. The apparatus of claim 11, wherein the preamble
2 servlet stores the client device characteristic
3 information and the content generator generates the
4 content data at approximately a same time.

1 18. The apparatus of claim 16, wherein the header

2 includes at least the client device type and one or more
3 of user identification, passwords, uniform resource
4 locator (URL) requested and HyperText Transfer Protocol
5 (HTTP) method used.

1 19. The apparatus of claim 11, wherein the preamble
2 servlet echoes the request to the content generator.

1 20. The apparatus of claim 11, wherein the preamble
2 servlet, content generator and transcoding servlet are
3 implemented in a network server.

1 21. A computer program product in a computer readable
2 medium for formatting content data for presentation on a
3 client device, comprising:

4 first instructions for receiving a request for the
5 content data, the request having client device
6 characteristic information;

7 second instructions for storing the client device
8 characteristic information;

9 third instructions for generating the content data;

10 and

11 fourth instructions for transcoding the content data
12 using the client device characteristic information to
13 produce transcoded content data.

1 22. The computer program product of claim 21, wherein

2 the second instructions are implemented in a preamble
3 servlet.

1 23. The computer program product of claim 22, wherein
2 the fourth instructions are performed by a transcoding
3 servlet, and wherein the transcoding servlet obtains the
4 client device characteristic information from the
5 preamble servlet.

1 24. The computer program product of claim 21, wherein
2 the content data is generic content data, and wherein the
3 transcoded content data is content data that is formatted
4 for presentation on the client device.

1 25. The computer program product of claim 21, wherein
2 the second instructions include instructions for storing
3 the client device characteristic information in a data
4 structure indexed for retrieval when generating a
5 response message.

1 26. The computer program product of claim 21, further
2 comprising:
3 fifth instructions for generating a response message
4 including the transcoded content data; and
5 sixth instructions for transmitting the response
6 message to the client device.

1 27. The computer program product of claim 21, wherein
2 the request is an hypertext transport protocol request
3 message, and wherein the client device characteristic
4 information is obtained from a header of the hypertext
5 transport protocol request message.

1 28. The computer program product of claim 21, wherein
2 the first instructions and third instructions are
3 performed at approximately a same time.

1 29. The computer program product of claim 22, further
2 comprising fifth instructions for echoing the request
3 from the preamble servlet to a content generator.